

WHAT IS CLAIMED IS:

1. A method for determining an increased likelihood of the presence of chronic fatigue syndrome (CFS), fibromyalgia (FMS), or rheumatoid arthritis (RA) in an individual, comprising the steps of:

isolating peripheral blood mononuclear cells (PBMC) from said individual;

and

detecting the presence of at least one mycoplasma species in said PBMC, wherein the presence of at least one of said species indicates an increased likelihood of the presence of CFS, FMS or RA.

2. The method of Claim 1, wherein the species detected is selected from the group consisting of *M. fermentans*, *M. hominis* and *M. penetrans*.

3. The method of Claim 1, wherein said detecting step comprises a polynucleotide amplification reaction.

4. The method of Claim 3, wherein said detecting step comprises multiplex PCR.

5. The method of Claim 1, wherein said detecting step comprises Southern hybridization or dot blot hybridization.

6. The method of Claim 3, wherein said amplification reaction comprises use of two or more oligonucleotide primers selected from the group consisting of the sequences shown in SEQ ID NOS: 3-8.

7. The method of Claim 6, wherein the the amplification reaction comprises use of the primers having sequences shown in SEQ ID NOS: 3 and 4 so as to amplify a 206 base pair region of *M. fermentans* DNA.

8. The method of Claim 6, wherein the the amplification reaction comprises use of the primers having sequences shown in SEQ ID NOS: 5 and 6 so as to amplify a 170 base pair region of *M. hominis* DNA.

9. The method of Claim 6, wherein the the amplification reaction comprises use of the primers having sequences shown in SEQ ID NOS: 7 and 8 so as to amplify a 407 base pair region of *M. penetrans* DNA.

10. The method of Claim 1, wherein the detecting step comprises detecting two or more mycoplasma species.

11. The method of Claim 10, wherein the two or more species are selected from the group consisting of *M. fermentans*, *M. hominis* and *M. penetrans*.

12. The method of Claim 11, wherein *M. fermentans*, *M. hominis* and *M. penetrans* are all detected.

13. The method of Claim 10, wherein the two or more species are simultaneously detected.

14. The method of Claim 12, wherein *M. fermentans*, *M. hominis* and *M. penetrans* are detected simultaneously.